

Flight, January 16th, 1909.

Flight

A Journal devoted to the Interests, Practice, and Progress of
Aerial Locomotion and Transport.—

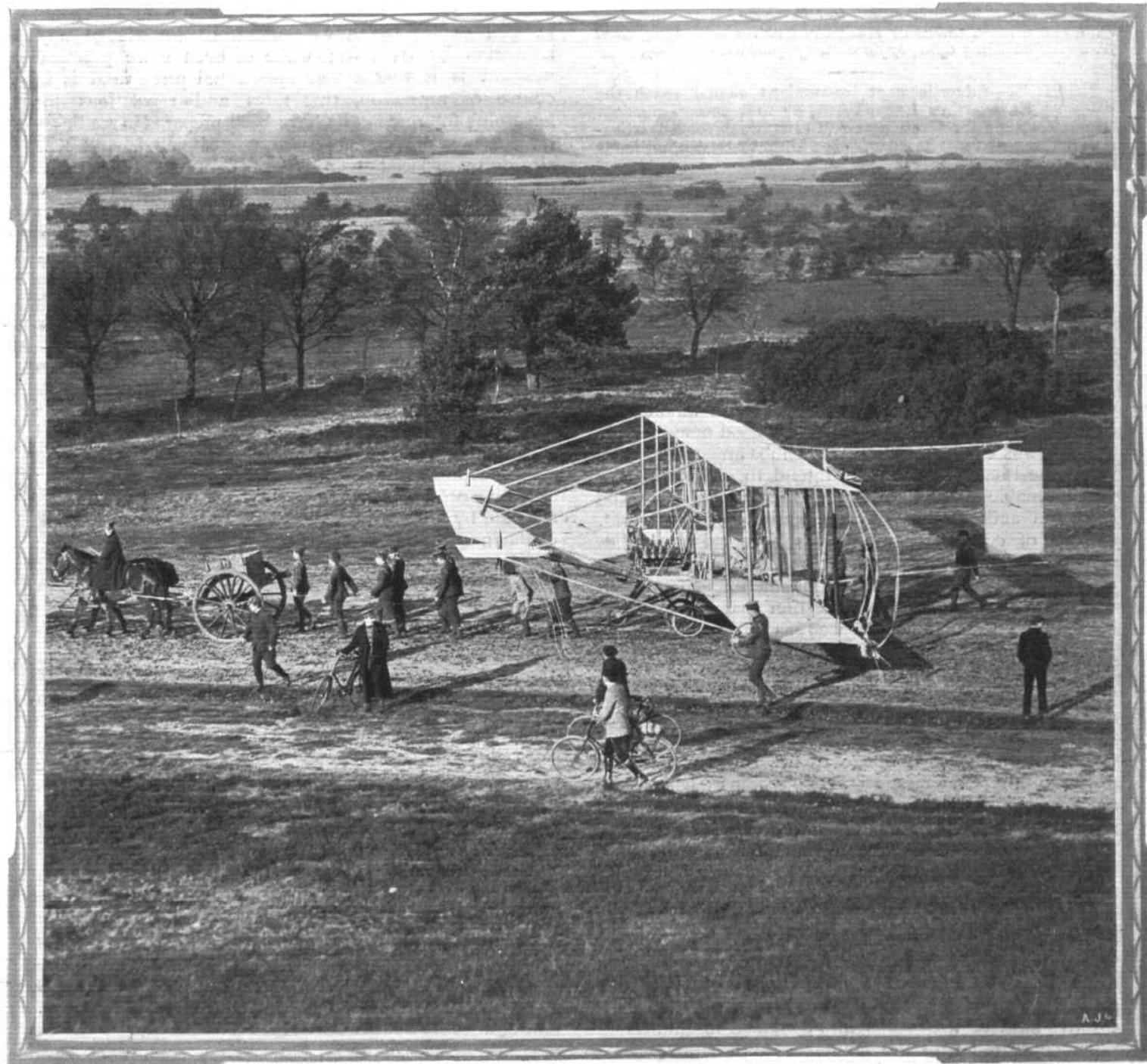
OFFICIAL ORGAN OF THE AERO CLUB OF THE UNITED KINGDOM.

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JANUARY 16TH, 1909.

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BRITISH ARMY AEROPLANE.—The new Army aeroplane constructed at Aldershot, en route between its shed and the trial ground at Farnborough on Saturday last, when Mr. Cody made a "flight" of about 20 yards at a height of about 10 feet. Mr. Cody, in a cap and gaiters, is seen to the left in the photograph.

FLIGHT.

44, ST. MARTIN'S LANE, LONDON, W.C.

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THE INTERNATIONAL CONFERENCE IN LONDON.

A GOOD deal of public misapprehension has existed in advance as to the nature, and therefore as to the importance of the Conference that has been held by the International Aeronautic Federation in London this week ; and, on the other hand, a certain amount of confusion has arisen in the minds of a good many people between this Conference of Aero Clubs and a Congress which the French Government intend to call during the year to enable questions affecting International law to be discussed authoritatively by the nations of the world. Clearly, of course, the mutually self-recognising bodies which officially represent the aeronautic movement in the various countries have no jurisdiction whatever in matters affecting the fresh legislation that will ere long be required for national as well as international use. But, for all that, the Conference of the past few days has been an event that will leave its mark for many a year to come upon the history of applied aeronautics ; and will for all time constitute one of the early monuments denoting that the era of flight had actually begun with this year of grace 1909. Initially, the main object of the Congress, at the time it was called, was to adjudicate upon the relative claims of Switzerland and the United Kingdom in respect to the winning of the Gordon-Bennett Balloon Race in October last—an episode concerning which we do not feel called upon to comment in this column. But, as a matter of fact, that portion of the actual agenda paper, which formed the basis for the deliberations of the Conference, will probably be deemed of least importance by the majority of people who are interested in the new sport that looks so promising for the near future. Everything of a retrospective kind at least sinks into complete insignificance when compared with the matters of future programme and policy which were subsequently mapped out ; and, unless we are very much mistaken indeed, the nett upshot of this London meeting will be to have advanced to an extent that has hitherto been impossible the cause of

Flight, as an organised movement tending to commercial materialisation. First and foremost, the Federation has established itself on an almost unassailable basis as the consolidated body which will control the social and sportive side of aeronautic progress in all its branches. As such, it now forms an international bond of union and co-operation between the national Club of each individual country and those of every other, thus conferring that power and prestige on a single recognised institution in each country which is so necessary for the organised and efficient representation of common interests in each land, while simultaneously ensuring unity of action in all matters which extend outside the immediate sphere of any one nation. There is, for one thing, no longer any doubt as to whether the existing Aero Clubs intend to act as real societies of encouragement for aeroplane and air-ship developments as well as for the advancement of knowledge and recreation by balloons ; while of even more practical moment is it that a very substantial prize fund is in course of formation, that rules and regulations for governing future contests have been prepared in readiness for the competitions that are contemplated, and that already a special committee of inquiry has been constituted for sketching out some propaganda that will enable the aeronautic world to hold its own when questions of legislation are brought to the fore. From many points of view, it is well that this first serious Conference should have been held in England, rather than abroad ; for, apart from the obvious advantages which it is bound to have for this country in awaking interest at home, the Federation as a whole has had its hands materially strengthened by the solid assistance afforded to it by the Royal Automobile Club. One of the points which came up for consideration was that of the relations that are to exist between the comparatively newly-formed aero clubs and the powerful automobile clubs which have of course been in existence for quite a number of years ; and one of the most significant resolutions which was adopted by the Conference was that of passing a vote of confidence in the French Aero Club as the aeronautic representative of France. Needless to say, the recent avaricious action of the Automobile Club de France, in endeavouring to arrogate to itself the functions of the French Aero Club, was at the root of this question being raised ; and equally evident is it, we are glad to see, that the Federation intends to throw its full weight upon the side of the smaller body. That the position between the Aero Club of the United Kingdom and the R.A.C. is in marked contrast to that which pertains in France is something for which we in this country have to congratulate ourselves ; and if it means, as there is good ground for hoping it will, that official representation of British aeronautic interests is to be saved from internal strife and dissensions in the days that are to come, rapid progress is assured for the dawning industry. But that, after all, is little more than incidental to the subject which we have in hand this week ; and must therefore be left at that until a future occasion. The real point to which attention has to be drawn is that a most successful Conference, bidding fair to bear the best of good fruit, has been held by the Federation Internationale Aeronautique, and that those deliberations took place in England. In what has been said above, we have indicated the nature of the deliberations and of the decisions that were arrived at ; but, for all that, we would draw special attention to the details of the proceedings that appear elsewhere in this issue.

THE FIRST PARIS AERONAUTICAL SALON.

(Continued from page 22, January 9th.)

ENGINES FOR AEROPLANES.

Types.

It is generally said that the development of the motor car engine has been the one factor which has made aeroplanes possible. Such, too, is indeed the case, but the truth of the saying applies to generalities only, and to the high-speed internal-combustion engine as a principle rather than as a definite machine. The motor car engine is light for the power it develops, wonderfully light compared with ordinary steam engineering practice, but it is not considered light enough for experimental work in these early days of flight. New designs, therefore, are to be seen on every side, and there is hardly an instance in which the motor car type of engine has been closely copied by the manufacturers of aeronautic machines.

The one exception that there is happens to be none other than the Wright engine, made by the Bariquand and Marre firm, for it alone has four upright cylinders. All the rest are quite unorthodox, although some, like the Antoinette, have been sufficiently long in existence to have become a well-known type. The Antoinette has its cylinders arranged V fashion, and so too has the Renault, the E.N.V., and the J.A.P., the last named being the only British-built exhibit at the Show.

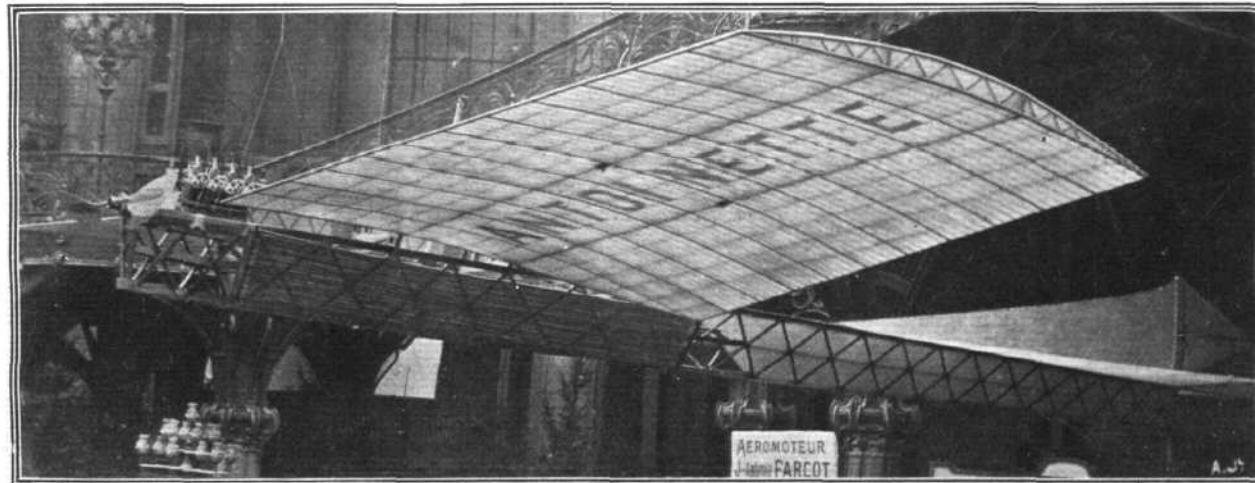
A leading idea which has very largely controlled the design of aero motors has been the necessity of making the engines run properly with only so much fly-wheel effect as they can obtain from the momentum of the propellers. A fly-wheel would in itself be regarded as so much useless weight on a flying machine, and makers have in consequence felt called upon to dispense with it, at any rate at the present time. The propeller, mounted direct on the crank-shaft, is doubtless a fair substitute, but one driven through a transmission-chain cannot very well have any useful effect in such a capacity, owing to the slack of the chain intervening at the moment when the stored-up energy, represented by the momentum of the fan, is to be returned to the assistance of overcoming the inertia of the engine's moving parts.

It is in order to overcome this initial difficulty that the majority of aero motors have a large number of cylinders, the object of this being to spread the impulses as evenly as possible over the two revolutions which go to com-

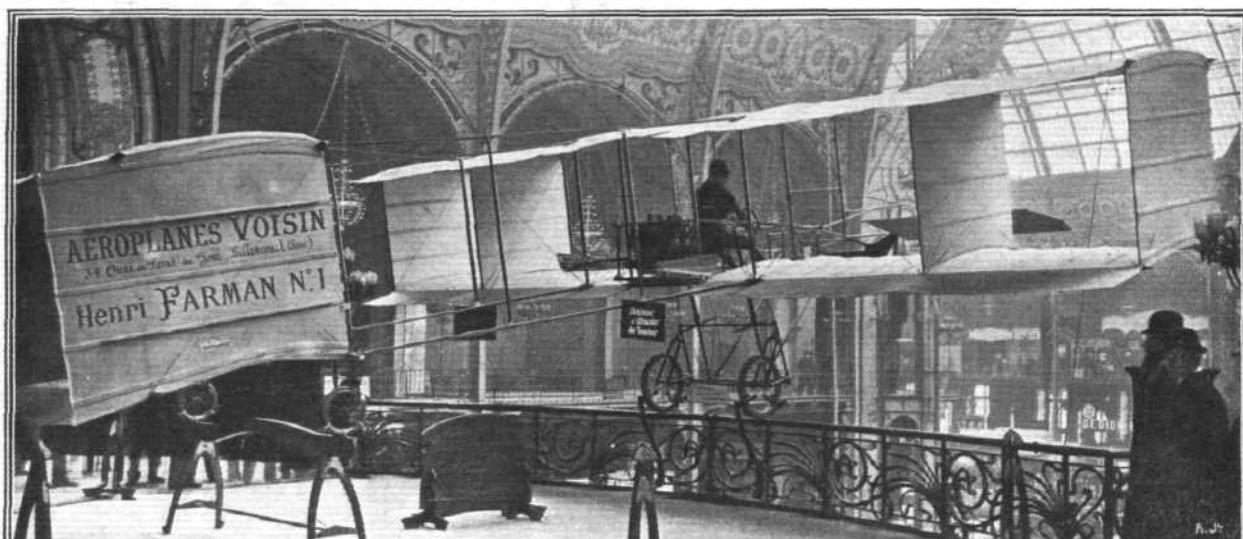
plete the Otto cycle. In the larger Antoinette engines there are as many as sixteen cylinders, but the more usual number is eight for engines of this pattern. Such a number gives a very even turning moment on the crank-shaft, and collectively they occupy but a moderate amount of space when arranged in this way.

Economy of overall length is, of course, a valuable feature in a light engine, because a long crank-shaft will not only be heavy in itself but will need a large number of bearings to keep it from whipping, and these in turn will involve a big crank-chamber. It is very easy to understand, therefore, why an engine with radial cylinders should suggest itself as a desirable basis for the design of an aerial motor, inasmuch as with such an arrangement both the crank-chamber and the crank-shaft are utilised to their fullest extent. This type has been developed in the Clement-Bayard, Gnome, Farcot, and Gobron-Brillie engines, but not one of these four but has been modified in other directions as well. The Clement and the Farcot are arranged horizontally, the Gnome is a rotary engine—that is to say, its cylinders revolve bodily about a fixed crank-shaft—and the Gobron, instead of having its eight cylinders arranged radially in one plane, has them arranged in pairs, so that they form a cross in appearance. The Gobron engine, it may be mentioned here, has sixteen pistons in its eight cylinders, working on the usual Gobron principle.

Other makers who have favoured the radial principle have been deterred from adopting it completely by fear of lubrication troubles in connection with those cylinders which are inverted, and this has, of course, in part accounted for the horizontal disposition of two of the engines mentioned above, which are in other respects of the pure radial type. In order to get over the difficulty of having inverted cylinders, while at the same time retaining certain advantages of the radial principle, M. Esnault Pelterie has adopted a design in which those cylinders which would ordinarily be inverted in such an engine are transferred *en bloc* to a position above the crank-chamber. Here they occupy a parallel plane, and assume positions which are midway between the other cylinders; they thus differ essentially—though not in effect—from engines



PARIS AERO SALON.—View, from beneath, of the Antoinette Monoplane, showing the lattice-girder frame, which carries the tubular condenser near the front end.



PARIS AERO SALON.—View of the Voisin Aeroplane, built on the lines of "Farman No. 1." The machine carries a dummy pilot, and is mounted as if about to fly off into the Grand Nef.

of the real radial type. In the R.E.P. models the engines have either five, seven, or ten cylinders, the last being virtually a double edition of the first. The use of five or seven cylinders simplifies the valve mechanism to a very great extent, as was described in *The Automotor Journal* of November 30th, 1907. Another engine which is "turned up," so that all the cylinders are set radially about the upper half of the base-chamber, is the De Korwin motor, made by Buchet. The Anzani engine has three radial cylinders arranged close together in one plane.

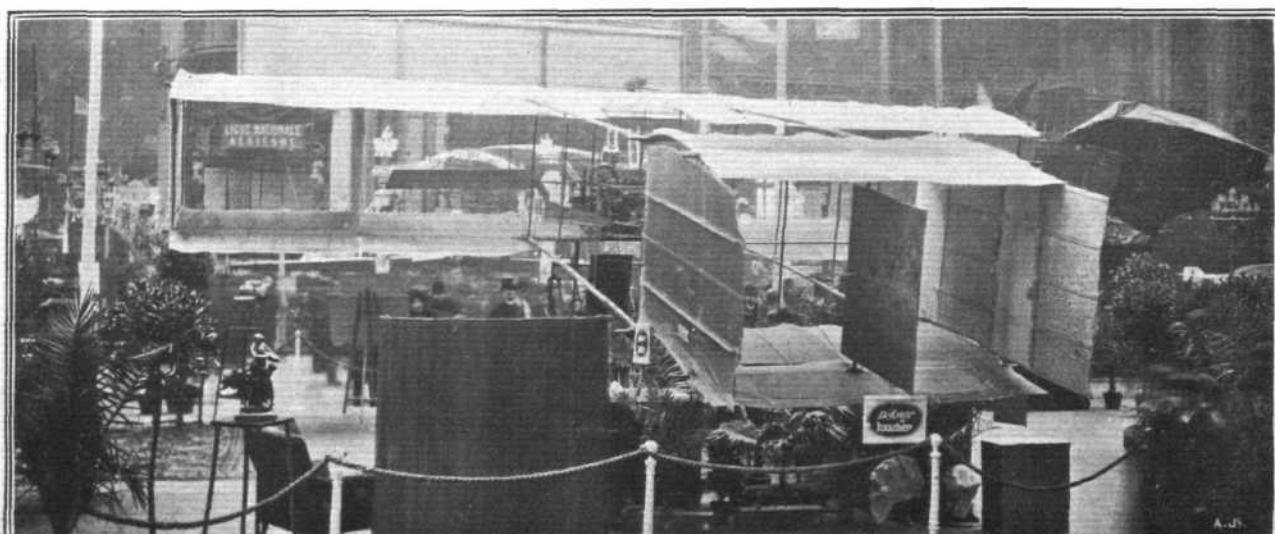
Forged Steel v. Cast Iron.

A feature of aeroplane engine construction which was very marked at the Paris Salon, and is the more interesting because it has no parallel in motor car engineering, is the use of steel cylinders forged in one piece with their heads and valve-chambers. Steel cylinders, as our readers know, are used by a few prominent makers of cars, but in such cases they are invariably separate from the cylinder-heads, and are virtually nothing more than a simple tube. In aeronautic engines such as the new Antoinette, the steel cylinder is quite a different thing altogether, for it is, as has been mentioned, forged solid with its own head

and valve-chamber. There is only one valve-chamber properly speaking, in the Antoinette engine, because the induction-valve is of the atmospheric type and is mounted independently under an aluminium cap. When the cylinder is first forged, the valve-chamber which is to be, is, of course, solid, and it has to be bored out in readiness to receive the valves, and a passage has to be made between it and the combustion-chamber in the cylinder. Other engines in which forged steel cylinders are used are the Clement-Bayard, the Gnome, and the Wright engine made by Bariquand and Marre.

Air v. Water Cooling.

The two main classifications into which aero motors fall at the present moment are respectively air-cooled and water-cooled types. So far as the exhibits at the Paris Salon go, the representatives of both are fairly equally divided. Among the water-cooled class are the Antoinette, Clement-Bayard, Gobron, Wright, E.N.V., and one of the J.A.P. models, while in the air-cooled category is the other J.A.P., the R.E.P., Anzani, De Korwin (Buchet), Gnome, Farcot, and Renault. In dealing with air-cooled engines, it is necessary to draw attention to those which rely upon natural convection currents to bring fresh air in contact with the hot metal,



PARIS AERO SALON.—Rear view of the Delagrange Aeroplane, built by Voisin. This illustration shows the box-kite tail and the rudder, which is not visible in the photograph of the Farman machine (above).

and those which utilise a forced circulation. Under this latter heading come the last three motors mentioned above. The Gnome is a rotary motor, and its cylinders therefore whirl round in the air; the Farcot has stationary cylinders set horizontally with a direct-driven fan mounted about them; the Renault is a "V" engine, and induces a draught about its cylinders by the use of a fan and piping.

Although the Antoinette has been mentioned above as belonging to the water-cooled class, it should, as a matter of fact, be placed in a category by itself, which might not inappropriately be termed "steam-cooled." The latest Antoinette system is to carry such a small amount of water in the reservoir that it quickly boils, and they provide an aluminium condenser to condense the steam thus formed. This condenser forms part of the Antoinette installation for their own aeroplanes, but, in the ordinary way, the purchaser has the option of buying the engine separately and using an ordinary radiator with a larger supply of water.

Light Water-Jackets.

Where water-cooling is employed, every effort is usually made that the cylinder-jackets shall be as light as possible. In two instances—Antoinette and E.N.V.—the jackets are formed by electrolytically deposited copper; that is to say, the cylinders are first prepared with a thick coating of wax to represent the water space, and to form a surface upon which the copper can "grow" in the electrolytic bath. The wax surface is coated with black-lead to act as a conductive medium for the electric current which carries the copper, and when the jacket is finished the wax is, of course, melted out to leave a hollow space for the water.

On the Gobron and Clement engines, tubular brass jackets are employed, and in the latter case these are shrunk in their places. On the Wright engine, made by Bariquand and Marre, the jackets are aluminium tubes.

Combined Valves.

Another expedient for reducing the weight, which has been adopted by some makers, is the use of a valve which combines the purposes of an induction-valve and an exhaust-valve in one. Such a device is to be found on the R.E.P. engine, and also on the Farcot, but it cannot be said to have come into general practice as yet. Those makers who have adopted the principle have done so, of course, because they object to the atmospheric valve, such as is used on the Antoinette and some other engines, and also because they wish to effect the saving of some of the parts involved in the operation of two separate valves by mechanical means.

In the case of the R.E.P., the operation of the two separate valves would be all the more complicated on account of the arrangement of the cylinders, but the combined valve enables a very neat design of operating mechanism to be introduced. The Wright, J.A.P., E.N.V., and Renault engines have mechanically-operated inlet and exhaust valves. The Gnome rotary engine has

TABLE OF FLIGHT MOTORS AT THE PARIS SALON.

Type.	Cyls.	Bore.	Stroke.	R.P.M.	Weight.	R.A.C. Rating.	Kilogs. Per h.p.	Lbs. Per h.p.	Remarks.
<i>h.p.</i>									
Water Cooled.		mm.	mm.		kgs.	h.p.			
20 Antoinette	...	8	80	80	1400	42	32	1.3	2.9
50 Antoinette	...	8	110	105	1100	95	60	1.6	3.5
50 Antoinette	...	16	80	80	1400	75	64	1.2	2.6
100 Antoinette	...	16	110	105	1100	120	120	1.0	2.2
60 J.A.P. ...	...	8	90	110	1300	138	40	3.5	7.6
50 Clement-Bayard	7	100	115	100	70	43	1.6	3.6	Horizontal radial ; mechanical valves.
32 Wright (B.M.) ...	4	108	110	1200	80	29	2.8	6.1	Vertical ; mechanical valves.
80 Gobron ...	...	8	120	200	1400	160	72	2.2	4.9
50 E.N.V. ...	...	8	100	130	1000	150	50	3.0	6.6
58 Dutheil-Chalmer	4	—	—	—	108	—	—	—	Horizontal opposed.
De Korwin	...	—	—	—	—	—	—	—	Model of 4-stroke-cycle engine.
<i>Air-Cooled.</i>									
20 R.E.P. ...	...	5	85	95	1600	53.5	22	2.4	5.3
30 R.E.P. ...	...	7	85	95	1600	68	31	2.2	4.8
50 R.E.P. ...	...	10	85	95	1600	97	45	2.2	4.7
35 J.A.P. ...	...	8	85	95	1500	100	36	2.8	6.1
50 Anzani ...	...	3	135	150	1200	108	34	3.2	7.0
30 De Korwin (Buchet)	6	80	80	1800	50	24	2.1	4.6	Semi-radial.
50 Fiat ...	...	8	—	—	60	—	—	—	V type ; mechanical valves.
<i>With Fan.</i>									
45 Renault ...	...	8	90	120	1500	145	40	3.6	8.0
75 Farcot ...	...	8	105	120	1200	110	55	2.0	4.4
50 Gnome ...	...	7	110	120	1200	75	52	1.4	3.2

an atmospheric valve in the piston, and a mechanically-operated exhaust-valve in the centre of the cylinder head. In several cases—the R.E.P. among them—the exhaust is allowed to blow straight out into the air without even passing through the shortest of pipes; in the case of the Gnome engine, the gases even impinge direct upon the valve-operating rock-lever.

(To be concluded.)



A Professor of Aeronautics.

ALTHOUGH there has been a good deal of talk with regard to founding a chair of aeronautics at various universities, we believe the first professor of aeronautics is Professor Prandtl, who has been appointed in Germany to lecture on the complete science of aeronautics at Göttingen University.

"Travel and Exploration".

Is the title of a new monthly magazine which is to deal with questions relating to touring and exploring on land and sea and in the air. In the first number, which has just been published, the features likely most to interest our readers are an article dealing with the history and achievements of dirigible balloons, which is contributed by Mr. Eric S. Bruce, and some notes on aerial flight showing why progress has not been made in this country, by Mr. H. Massac Buist. Some hints on motoring in snow are also from the pen of Mr. Buist. The new magazine is very interesting, and the many photographs with which it is illustrated are well reproduced, so that it should be assured of a large public.

NEWS OF THE WEEK.

International Aeronautic Federation in London.

THE International Aeronautic Federation commenced its sittings in London at the Hotel Ritz on Monday, January 11th, when Mr. Roger W. Wallace, K.C., Chairman of the Aero Club of the U.K., presided in the absence of Prince Roland Buonaparte. Forty delegates were nominated by their respective countries to attend. The first day's sitting occupied some five hours, and was principally devoted to the appeal of the British Aero Club against the award of the Gordon-Bennett Balloon Cup to Colonel Schaeck's "Helvetia." The conference, however, did not support the protest, and the award to Switzerland was therefore confirmed. The full items on the agenda paper for discussion at the conference were as follows :—

1. The question of admitting the Aero Club of Odessa as representing Russia.
2. Discussion of the appeal of the Aero Club of the United Kingdom against the decision of the Berlin Aero Club in awarding the Gordon-Bennett long-distance prize of 1908 to the Swiss balloon "Helvetia."
3. Modification of the representation of the various aero clubs of each country on the Federation.
4. Relations between the aero clubs and automobile clubs of different countries.
5. Discussion and adoption of rules and regulations governing dirigible balloon and aeroplane contests.
6. To consider rules governing the Gordon-Bennett Aviation Cup Race, 1909.
7. Report of the committee charged with revising the statutes and regulations of the Federation.

The following is the official text of the minute in which the conference expressed this resolution relating to the Gordon-Bennett Race :—

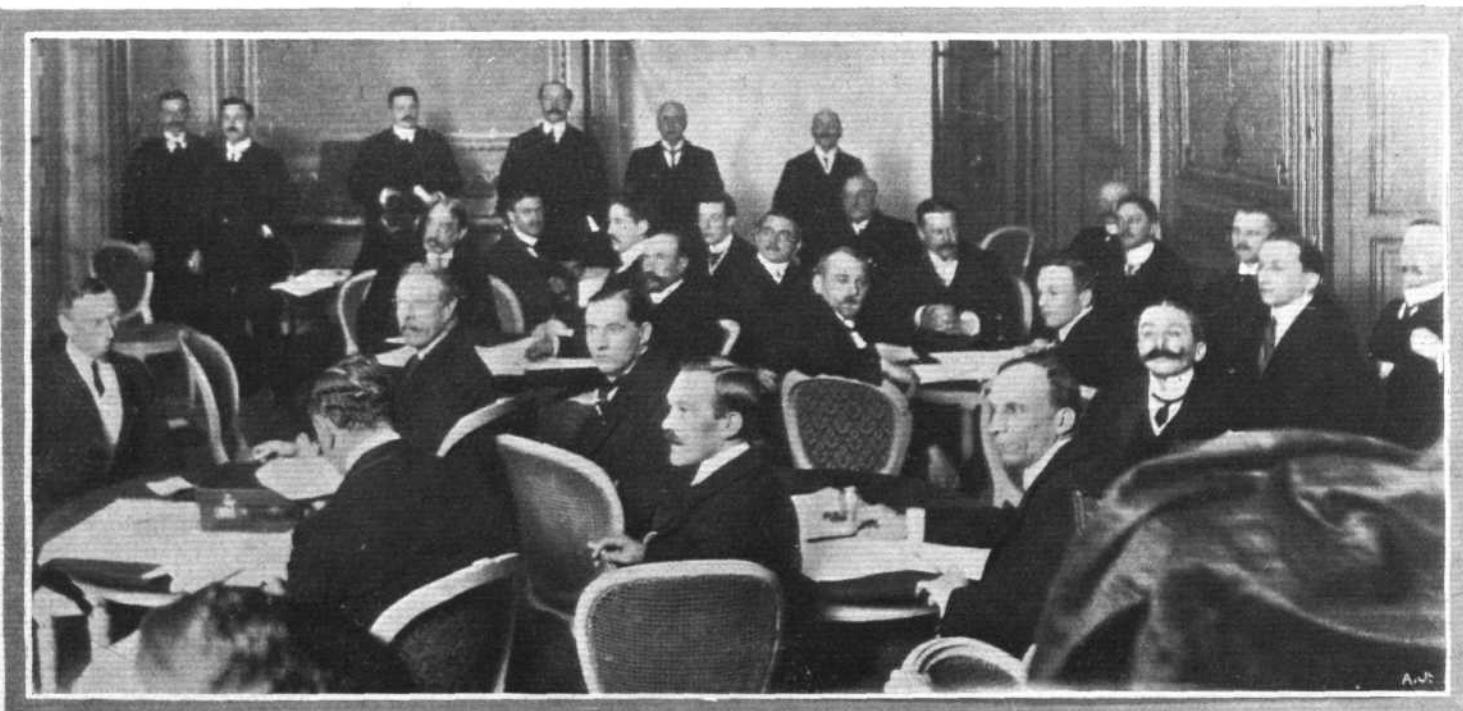
"The International Conference, meeting to decide the winner of the Gordon-Bennett Race, declares—'That, having taken note of the official award of the German Club, whereby Colonel Schaeck was exclusively, on a point of law, declared the winner; that, having considered the various proposals submitted to the meeting, some of which suggested the annulment of the race, whilst others

suggested that the first place should be awarded to Mr. John Dunville, and that Colonel Schaeck should be disqualified, regrets that the obligatory interpretation of its rules prevents this conference from giving a retro-active effect to the decision of May 27th, 1908, and also regrets that, having before him the proposition put forward in a perfect spirit of sport by the Aero Club of the United Kingdom, Colonel Schaeck should have expressed his willingness that the first prize should be awarded to the club which had protested against him, provided that he himself were awarded a place in the race, and to accept the division with Mr. Dunville of the sum of 12,500 fr.; this attitude is deplored by the conference, which, nevertheless, accepts the classification of the German Club.'"

At Tuesday's meeting, a proposal was put before the conference by Belgium that the Federation should found an International prize fund to the value of £48,000, with proportionate subscriptions from the different countries, England, America, France, and Germany to give £8,000 each. The proposal was accepted in principle, and, if possible, will be carried through. A committee of three military, naval, and legal experts, from each affiliated Club, was appointed to inquire into the question of regulating flight by International law.

On the question of proportionate representation on the F.A.I., a resolution was passed by which the delegates will be proportionate to the relative aeronautic activities of the country they represent. A vote of confidence in the French Aero Club, as representing aviation in France, was passed.

In connection with the friction which has taken place between the Aero Club of France and the Automobile Club of France, the following proposal by Mr. Roger Wallace on behalf of America was carried. "The International Federation decides that any affiliated aeronautical club is free to act in its own country and can enter into any arrangement with another organisation, but only on condition that it maintains in all its integrity the fundamental statutes of the Federation." This resolution, besides being a vote of confidence in the French Club,



INTERNATIONAL AERONAUTICAL CONFERENCE, LONDON, JANUARY 11th, 12th, and 13th, 1909.—Meeting of the Delegates to the Conference at the Ritz Hotel. See Key Plan on opposite page.

confirms the supreme control of national aeronautics by the representative Aero Club of each country.

The French club proposed a set of rules for aerial contests (a *résumé* of which appeared in our last issue on page 27), which were provisionally adopted until the next conference, to take place in October this year. In the meantime a council of four was appointed to report on the rules.

A list of the names of delegates who attended the Conference, and other information reported by the Secretary of the Aero Club of the U.K. will be found on the page setting forth the official notices of the Club.

Monoplane Passenger Flight.

FOR the first time in the history of aviation, a monoplane, "Antoinette IV," made a successful flight with a passenger. The event took place on Tuesday, January 5th, at Issy-les-Moulineaux, when M. Welferinger carried M. Robert Gastambide through the air for a distance of half a kilometre. In subsequent solo flights the machine attained speeds of 75 kiloms. an hour; the trials were brought to a sudden conclusion on the Wednesday by the breaking of one of the wings while attempting a too sudden turning.

The Gasnier Aeroplane.

RENÉ GASNIER, whose successful flight was chronicled in *The Automotor Journal* of November 21st, 1908, has reconstructed his aeroplane after his accident, and is once more making experiments at Fresne, near Bouchemaine. The machine has 35 square metres surface and 10 metres spread. It is of the biplane type, and is 9·5 metres in overall length. Equipped with a 50-h.p. Antoinette engine, it weighs 500 kilogs. in running order. In front is the elevator, and at the rear is a fixed horizontal tail.

Vermorel Aeroplane.

M. VERMOREL, an engineer at Villefranche-sur-Saone, has had an aeroplane constructed for experimental purposes. No particulars are as yet available

as to the type he has selected, but it is stated that the engine is capable of developing 48-h.p. and weighs 78 kilogs.

Bernard Aeroplane.

M. BERNARD, of Marigny, is reported to be constructing an aeroplane of an entirely novel character, which he designates by the term *multiplan articulé*, because it is so designed as to give automatic transverse and longitudinal stability. In addition, it is to be equipped with a special system of propellers, which have been designed to give a better starting effect.

Zatopp Aeroplane.

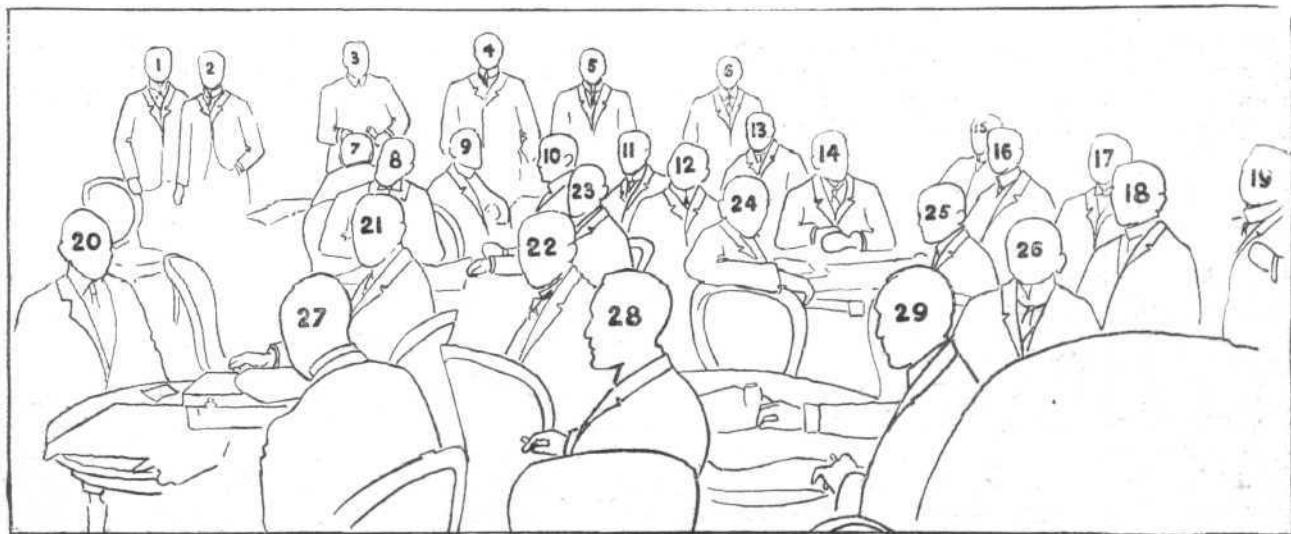
M. ZATOPP, a Russian civil engineer, is reported to have achieved a flight of 32 metres at Saint Martin de Crau, in an aeroplane which is equipped with an engine that is said to use a form of glycerine as a fuel.

The Lepouse Aeroplane.

THE aeroplane which is being built by M. Lepouse at Brussels, and which is to be called an "*aero-torpille*," measures 5 metres in length and has a span of only 3 metres. It is said to be equipped with a gas turbine, and that the whole apparatus only weighs 75 kilogs.

Farman's Anniversary in Flight.

WEDNESDAY of this week, January 13th, was the anniversary of the first Grand Prix of the air, which Henry Farman won by making a flight of 1 kilom. in a closed circuit. The prize of 50,000 francs was established by Messrs. Deutsch de la Meurthe and Ernest Archdeacon, and the winning of it was justly considered to mark the beginning of a new era in aviation. Always were the pioneers striving to make a circular flight, and it seems almost incredible that only a year ago there was no official record of such an apparently simple performance having been accomplished. Since that day Farman has made wonderful strides, as everyone expected he would. In July he won the Armengaud prize for remaining in the air over a quarter of an hour in duration, and



INTERNATIONAL AERONAUTICAL CONFERENCE.

Key plan to the photograph opposite.

1. J. H. LEDEBOER, and 2. H. PERRIN (*Secretaries of the Conference*); 3. F. JACOBS (*Belgium*); 4. COUNT DE LA VAULX (*France*); 5. ROGER W. WALLACE, K.C. (*Chairman Aero Club U.K., and President of the Conference*); 6. PROF. BUSLEY (*Germany*); 7. Reporter; 8. VICE-ADMIRAL SIR CHARLES CAMPBELL, K.C.M.G.; 9. HON. C. S. ROLLS; 10. CAPT. KINDELAN (*Spain*); 11. J. T. C. MOORE - BRABAZON; 12. H. HIEDEMANN (*Germany*); 13. PROF. A. K. HUNTINGTON; 14. LT. - COL. MOEDEBECK (*Germany*); 15. COL. SCHAECK (*Switzerland*); 16. CAPT. MESSNER (*Switzerland*); 17. CAPT. HILDEBRANDT (*Germany*); 18. E. CLOUTH (*Germany*); 19. H. WURMBACH (*Germany*); 20. JOHN DUNVILLE; 21. C. F. POLLOCK; 22. LORD ROYSTON; 23. COL. VIVES (*Spain*); 24. H. STADE (*Germany*); 25. H. MANNS (*Germany*); 26. BARON GUY VAN ZUYLEN (*Belgium*); 27. V. KER-SEYMER; 28. MARTIN DALE; 29. ERNEST C. BUCKNALL.

on the last day of October he won the French Aero Club prize for high flight by clearing an obstacle of 25 metres. Perhaps the flight for which his name is most likely to go down to history, however, is that which he made between Bouvry and Rheims on October 30th, for this was the first occasion on which man has ever flown from one town to another. The longest flight which Henry Farman has hitherto executed is one of just over 40 kiloms. in a duration of 44 mins. 32 secs., and was made on October 2nd.

Farman Triplane Sold.

HENRY FARMAN has sold his triplane to some purchasers who do not wish to have their names made known at the present moment. The sale was effected on Tuesday, January 5th, at Mourmelon-le-Grand after a demonstration trial. The machine, it is interesting to note, was sold as a triplane, although Farman repeatedly used it as a biplane. It is equipped with an Antoinette engine.

Farman's New Machine.

HAVING sold his triplane, Farman is putting in hand at Chalons two or three new machines; the first will be a triplane built on lighter lines than that just sold, the second will be of a different type and lighter still; at present no information is available as to what the third will be like. The smaller of the two proposed machines will have an engine of not more than 25 to 30-h.p., and a feature of its arrangement will be such that it will operate with either one or two propellers running at 600 r.p.m.

It is stated that Henry Farman is about to take out patents on these machines.

Maurice Farman's Aeroplane.

THE aeroplane which Maurice Farman, brother of the famous Henry Farman, is having built for himself, will be constructed by Maurice Mallet. It is a biplane with a 10-metre span, and carries the engine and the pilot's seat on a central frame. In front is an elevator and behind is a rudder; means are also provided for warping the planes. Two engines have been chosen with which trials are to be made, one a 40-h.p. R.E.P. and the other a 58-h.p. Renault. It is probable that the machine will be equipped with two propellers driven by chains. The machine is expected to weigh 250 kilogs.

without the motor or propellers. Except for the rudder, there are no vertical surfaces on the machine.

British Army Aeroplane "Flies" 20 Yards.

PILOTED by Mr. Cody, the British Army aeroplane succeeded, on Saturday, January 9th, in "flying" a matter of 20 yards on the Farnborough Common. During the course of its brief flight it attained an altitude of about 10 feet, but at no time did the machine look very happy in the air, for it was obviously too heavy in the stern. This, according to Mr. Cody, was due to the arrangement of the condensers behind the pilot, and he anticipates that when they are shifted forward he will be able to make a more successful effort.

We publish this week two very interesting photographs of the machine taken on the occasion of its trials on Saturday. One shows the aeroplane, which measures over 51 feet span, being drawn to the seat of operations, and the other shows it in the air at a very sharp angle to the ground.

Robart Aeroplane.

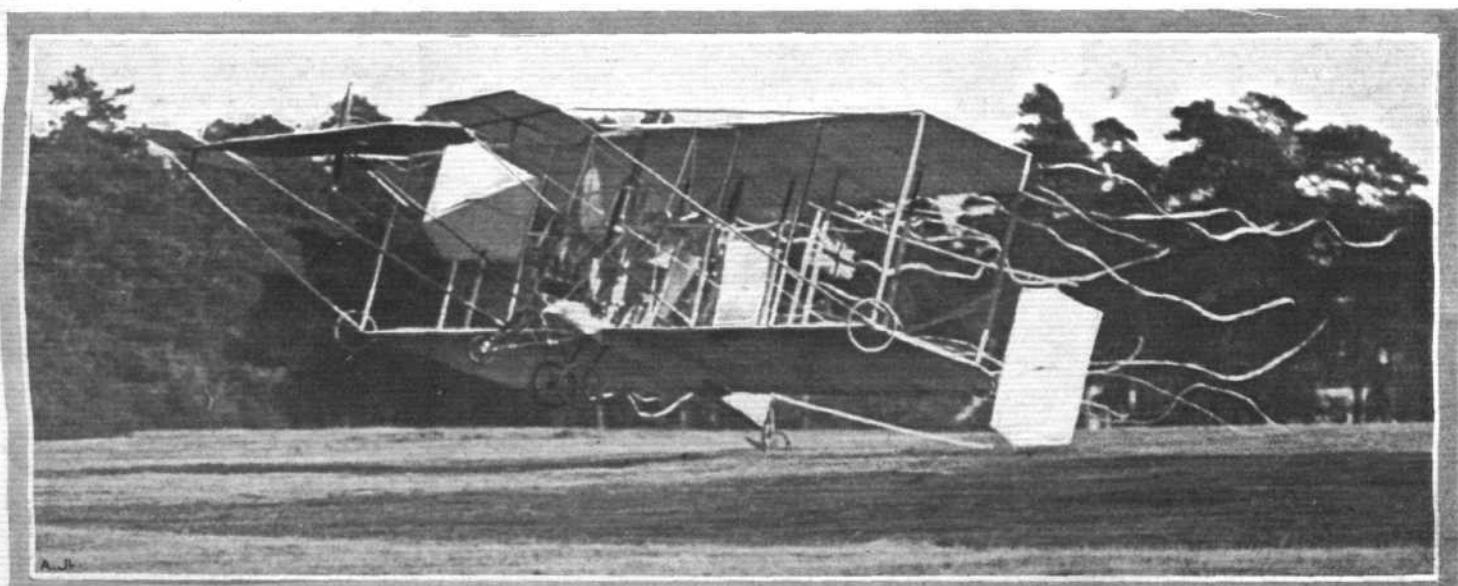
M. HENRI ROBART, of Amiens, has recommenced his flying experiments with a new aeroplane weighing 400 kilogs., and fitted with a 40-h.p. Antoinette engine. The surface is 50 sq. metres, and the engine drives two twin-bladed propellers through chains; the propellers are 2'32 metres in diameter and 3 metres in width.

De Caters' Aeroplane.

BARON DE CATERS, who has entered for the kilometre prize instituted by the Belgian Aero Club, succeeded in accomplishing a few flights of about 100 metres in length at Brecht on December 20th. Foggy weather brought his trials to a conclusion.

DelaGrange on Heavy-weights.

THERE is already the beginning of much difference of opinion in aeronautical circles as to the ultimate use of light aviation motors, and M. DelaGrange is taking the initiative on the side of the heavy-weights by making practical experiments with them. He has equipped his aeroplane with a 50-h.p. Chenu engine weighing 3 kilogs. per horse-power, and has already made some short flights with it. It only remains for him to accomplish a long flight successfully to turn everyone's attention in this new direction.



BRITISH ARMY AEROPLANE.—Mr. Cody in flight on Saturday last at Farnborough on the new Army aeroplane. This flight was about 20 yards (by some it is stated to have been 50 yards) at a height of 10 feet.

Orville Wright on the Cost of Upkeep.

SPEAKING to a press representative before he left America to join his brother Wilbur in France, Orville Wright made the interesting statement that "an aeroplane flies faster, is cheaper to run, and is more easily handled than any other machine. Airships will have their uses, but can never be as practicable as aeroplanes." If all these things are true—and Orville Wright ought to know as well as anyone—there is not only going to be a very great future for the aeroplane, but it is going to come very quickly, for in these hard times an appeal to the pocket is heeded by all, and there never was a day in the history of man when the idea of speed did not set hearts beating faster. The only thing that is a stumbling block at the present time is just that little doubt as to whether these same aeroplanes really are "more easily handled than any other machine."

Orville Wright at Plymouth.

By the time he reached Plymouth in the "Kaiser Wilhelm der Grosse," on Monday, January 11th, Orville Wright had a little more to say on the same subject with the representatives of the English press who came to see him. Speaking on the subject of commercial flying machines, he said that he did not think they would come into general use for commercial purposes, although he was convinced that they would largely take the place of yachts and motor cars for pleasure. He was emphatic in stating that "Most assuredly in 10 years the conquest of the air will be accomplished, and it is my belief that the aeroplane will have made great strides in progress, as has the motor car in the last decade."

Orville Wright has not yet recovered from his accident, and, in fact, his doctor thinks it will be a year before he is quite right again. Orville himself, however, wants to fly in three months, although he has no intention of taking any undue risks; moreover, he has the vigilant eye of his sister Katherine on him to see that he attempts nothing rash at the present moment.

Wright Aeroplane Makers.

TWO firms have been selected to undertake the construction of the Wright aeroplanes for M. Lazare Weiller's Company, the Cie. Generale de Navigation Aerienne. One of these firms is the Chantiers de France, of Dunkirk, and the other is the Société "Astra" of Billancourt. The sole selling rights have been acquired by M. Michel Clemenceau, son of the well-known French Minister, who has, according to the latest information, given an order for twenty-five machines.

Aeroplane Experiments in America.

SEVERAL experiments with the new aeroplane, "Silver Dart," described in our last issue, were made on December 6th, when three short flights were accomplished. The machine was also out again on Dec. 11th, and some trials were made with two persons on board, but they were brought to a conclusion by a slight accident. Soon after the aeroplane rose a few feet from the ground, however, it tipped to one side, bringing one of the wings into contact with the earth. This caused the machine to swing round suddenly, resulting in the wheels being smashed. It is thought that the apparatus got out of control owing to the gyroscopic action set up by the 50-h.p. motor driving the single propeller.

Aero Club of France Affiliations.

THE Aero Club of France has just accepted the affiliation of two important aeronautic societies, one being

the Anciens Aerostiers Militaires of Paris, and the other the Aero Club de l'Ouest, which has its head-quarters at Angers.

Official Pilots.

THE Pilots' Flight Certificate of the Aero Club of France has been issued to Messrs. Wilbur Wright, Orville Wright, Henry Farman, Delagrange, Bleriot, Santos Dumont, Esnault-Pelterie, and Captain Ferber.

The rules under which these certificates are issued have been compiled by the Aviation Committee of the Aero Club of France.

Prize for Aero-Motors.

THE Commission d'Aviation of the Aero Club of France has drawn up rules for a prize to be offered for aero-motors. It will consist of a sum of 500 frs. and will be awarded to the maker of the engine which was used on the aeroplane which has achieved the record distance flight up to June 30th, this year. A sum of 200 frs. will be awarded under similar conditions as second prize.

These prizes have been presented by M. Lariviere and M. Robert Balsan respectively.

L.N. Pupils.

THE Ligue Nationale Aerienne has evidently no intention of perishing with the passing away of the present generation. It has founded a committee of pupil pilots, who are recruited from the engineers-to-be of the well-known technical schools. Among those who have joined are 80 students from the Polytechnic, 50 from the Central School, and a large number from the Mining School. In order to enable the boys to witness practical experiments, certain days have been set apart for them at the Juvisy aerodrome.

The L.N. at Douai.

A BRANCH of the Ligue Nationale has been founded at Douai. M. Louis Breguet, MM. René Quinton and Ernest Archdeacon opened a conference at the Hippodrome there on Sunday last, January 10th, when the subject of aerial navigation was discussed.

T.C.F. Aerial Tourists.

REALISING that the object of the Touring Club of France is the development of touring in all its forms, that body has just created a *Comité de Tourisme Aérien*, under the Presidency of M. Leon Barthou, with MM. Leon Chaix and Paul Renard as Vice-Presidents. The preliminary work for this new section will consist in the study of matters relating to the preparation of suitable maps and guides to landmarks, garages, &c., and of information relating to legislation, general regulations, and Customs formalities. In evidence of its practical interest in the movement, it has inaugurated its formation by subscribing 100 francs to the fund opened by the Aeronautic Club for the founding of the Mechanics' Prize, which was recently referred to in *The Automotor Journal*.

Aviation Committee in Belgium.

THE Belgian Automobile Club has formed an Aviation Committee to further the interests of mechanical flight in that country. The Committee consists of Baron de Crawhez, who has been elected President, and Baron de Caters, Baron Joseph de Crawhez, Count de Liedekerke, and MM. Jacobs, H. d'Oultremont, R. Goldschmidt, d'Aoust, E. Solvay, and P. de Vasselot.

Ligue Meridionale Aerienne.

THE chief officers of the L.M.A. have been elected as follows:—President, M. C. F. Baudry, President of the Aero Club du Sud-Ouest; Vice-Presidents, MM. E. Saulier, E. Sirven, Viscount de Curzay, and A. Salgues; Secretary, M. J. Avril.

Monaco Flight Meeting.

LITTLE more than a week has to elapse before the opening date of the first aviation competition which the world has seen is due to commence at Monaco. Already nine aeroplanes have been entered for the big event, which consists, as our readers know, of flying from the Monaco Quay across the bay, round Cap Martin, and back again. The meeting is under the organisation of the International Sporting Club of Monaco, and will be held under the rules of the International Federation. The right to make flights in this competition will remain in force until March 24th. It is significant that Wilbur Wright has not yet notified his intention of taking part. The following are the nine entries at present engaged:—

Entrant.	Aeroplane.	Type.	Engine.
1. Lieut. Bourgeat	Antoinette	Monoplane	Antoinette
2. Soc. Antoinette	Antoinette IV	Monoplane	Antoinette
3. R. Demanest...	Antoinette V	Monoplane	Antoinette
4. Delagrange ...	Voisin	Biplane	Chenu
5. Delagrange ...	Voisin	Biplane	Antoinette
6. L. Breguet ...	Breguet-Richet 2 bis	Helicopter-Aeroplane	Gobron
7. L. Breguet ...	Breguet	Biplane	Gobron
8. Baron de Caters	Voisin	Biplane	
9. G. Vuitton ...	Vuitton-Hubert	Helicopter	

In Aid of Messina.

M. GEORGES PRADE, the well-known French journalist, has written an open letter in his paper, *Les Sports*, to M. Jean Dupuy, President of the *Syndicat de la Presse Parisienne*, suggesting that that body should organise an aviation fête on the Longchamps Racecourse on January 24th in support of the Messina Relief Fund. The date suggested is one on which the racecourse would be available for the purpose, and the letter urges the Society to obtain permission to use it, and to do everything in its power to ensure the attendance of many aeroplanes and airships for all Paris to see.

If this project is carried through successfully, it would doubtless have the twofold effect of raising a very considerable sum for a charitable and deserving purpose, and also of giving a further impetus in the public mind to the cause of flight. Already several aeronauts have tentatively promised assistance.

Anjou Cup.

ON Saturday evening, January 9th, a committee meeting was held in the Angers Town Hall under the chairmanship of the Mayor, Dr. Monprofit, to discuss the much talked of aviation week in Anjou to replace the Grand Prix motor race. The organisation of the event is to be under the control of the Aero Club of France, working in conjunction with the Aero Club de l'Ouest, and the principal event of the meeting would, of course, be the proposed Angers-Saumur race for aeroplanes. In addition, there would probably be some form of demonstration with spherical balloons, and it is also suggested that an event taking place between Angers and Nantes would be acceptable to the inhabitants of the latter town. In the meantime, the Aero Club de l'Ouest has undertaken the preparation of draft proposals which will form a basis for future discussion. Some date between Sep-

tember 15th and 30th, 1909, was stated to be the most suitable time for the meeting to take place.

Juvisy Aerodrome Under Snow.

ONCE more has the Société d'Encouragement been forced to postpone the opening of the Juvisy aerodrome, this time owing to the ground being covered with snow. No date is at present fixed for the inauguration, but in any case the invitation cards already issued will hold good for the ceremony when it occurs.

Wilbur Wright will not Fly at Juvisy.

RUMOURS have been current that Wilbur Wright will give demonstration flights at Juvisy before he leaves for Pau. This however is not the case, and he has definitely said that it is impossible for him to do so.

The Aerodrome at Pau.

AT Pau, Wilbur Wright will have a wonderful natural aerodrome to experiment on, and according to all accounts, he should be further blessed with more propitious weather, for the climate and the winds in that part of the Bearn district are usually of the mildest description. Already the aeroplane shed has been erected, the site chosen being in the middle of the Pont-Long moors. The shed has been made large enough to accommodate several aeroplanes, and contains private rooms and a workshop. It is about 10 kiloms. from Pau, and lies north of Lescar. The moors on which it is placed stretch for a distance of 50 kiloms., and are devoid of trees, houses, and cultivation.

Thither Wilbur Wright will be accompanied by his brother Orville and his sister Katherine, besides his three pupils. M. Paul Tissandier, who is one of them, has already sent on his machine to Pau, and it is probable that experiments will be commenced on the 20th of this month.

Aero Exhibits at Agricultural Hall.

IN connection with the Cordingley Motor Exhibition and Market, which is to be held in March next at the Agricultural Hall, there will again be an aero section. We are informed that one or two prominent aviators have promised to lend their machines, so the exhibits should therefore be more interesting than has been the case with previous displays there.

Aviation in Spain.

THE King of Spain is apparently anxious that his country should not be behind others in the realm of flight, and as a preliminary to further progress he is dispatching Captain Kindelan, and another officer to France and America with a view to investigating what is going on in those countries. In the meantime, a society is being formed at Barcelona, termed the Association de Locomocion Aerea. The President is Senor Gomas y Solas, and the Committee includes Messrs. F. del Villar, J. Marchesi, G. J. de Guillen-Garcia, F. Sojo, J. Padros, and J. Sarda.

French Army Airship Specification.

THE military authorities have asked, through the medium of the different societies concerned, for designs to be submitted to them of an airship complying with the following specification:—*Speed*, 50 kiloms. an hour for 15 hours, with a load of six passengers, having an average weight of 75 kilogs.; *maximum altitude*, 2,000 metres; *maximum volume*, 6,500 cubic metres; *maximum length*, 90 metres; *maximum height*, 20 metres; *maximum diameter*, 13 metres. Trials will be made over a 500-kilom. circuit in winds up to 7 metres per second,

JANUARY 16, 1909.

Flight

and will last 15 hours without descending. They will be carried out at an altitude exceeding 1,300 metres during two-thirds of the voyage, and places specified in advance will have to be reached.

A prize of 5,000 francs will be awarded to the winner of the competition, and other prizes will be allotted according to classification. The winner will be given the order for the construction of a duplicate or duplicates for the Government.

Public Garage for Dirigibles.

AN interesting project is on foot in Belgium, where a wealthy manufacturer, M. Solvay, who, it is stated, has

been backed up by Prince Albert of Belgium, has decided to build an immense shed at Jemeppe for dirigibles and airships. Large stores of hydrogen will be available for the inflation of envelopes, and arrangements made for carrying on other kinds of work in connection with them. It is stated that the Company have ordered two dirigibles from France as part of their stock-in-trade, and that one of their engineers, M. Lepouse, is experimenting with an aeroplane of peculiar construction. What their ultimate full programme is to be, is not at present quite evident.

Germany's Airship Garage.

GERMANY is also contemplating the erection of a vast shed for her airships, but in this case it naturally

International Aeronautic Federation

Conference Royal Automobile Club, London. 12th January 1909.

Rovallaeu
Henry de Saxe
Bunley
Tom Jacobs
Frank Hedges Butler
Dr Castillon de Kib
Winstanley
Col. P. Vines & Vicks
Baron Guy van Tuylen van
Sleibant D' de
A. K. Henshaw
J. T. C. Moore-Baralagon
Colonel Schantz

of Stade
M. Wimberly
Alfredo Kunzelman
Gaston Gillebaud
Ernest C. Bucknell
Hans W. Perrin
E. Mervine Carl.
Pierre Gasnier
Funkhess
A. H. Grubb
Guy Lyle Spooner
John A. Hadlock
Walter Segar
Van Knostead
Ferber
Adhemar de la Hoult
Lieutenant G. Dertweith

INTERNATIONAL AERONAUTICAL FEDERATION.—Signatures of those present at the Luncheon to the Delegates of the Conference, given at the Royal Automobile Club on Tuesday, January 12th.

assumes more of a national aspect. Those of the Zeppelin type are, as our readers know, housed in floating sheds, but the suggested new garage would be erected at Friedrichshof on land.

Schutte Airship.

No further particulars, beyond those published in *The Automotor Journal* on December 12th, are available in respect to the Schutte airship, which has been designed by a Professor of the Danzig Technical High School on lines suggested by a Berlin architect named Rettig. Much importance, however, is being attached by those interested, to the wooden framework which is being employed, for in other respects it is very evident that the airship is to follow closely on Zeppelin lines. It has been sought to show that the Zeppelin disaster was caused by a self-generated electric discharge from the aluminium framework, and on these grounds the use of wood in the Schutte dirigible is claimed to be a vast improvement. American pine is the selected material.

Siemens-Schukert Airship.

THE information which was published in *The Automotor Journal* of November 23rd, to the effect that the famous Siemens-Schukert firm were about to take up the construction of airships, is materialising in the further news that they have already decided upon the designs for their first machine, which is to be built under the supervision of Captain von Krogh. The envelope will be of the ordinary non-rigid type, having a volume of 12,000 cubic metres, with a length of 100 metres and a diameter of 13 metres. It will be propelled by engines developing 500-h.p., and there will be at least two, and perhaps three, passenger cars.

Consulting Aviation Engineers.

IT seems early days yet for aviation to have consulting engineers. But there are some people who are

ever on the move with the times, and thus there are generally to be found a few who depart from a rigorously conservative policy in these matters. Messrs. Markham and Prance are a case in point at the present time, for they inform us they have laid themselves out to deal with this new industry in the same way as they have done with automobile matters on land and on sea. Among other duties which they will undertake is to secure any make of flying machine which their clients may wish to possess, and as all the well-known machines happen, unfortunately, to be in France at the present time, those of our readers who may be thinking of obtaining a Wright or a Voisin for experimental purposes may find the services of Messrs. Markham and Prance a considerable saving of time and trouble.

Church bans Flight.

IF General Kovanko, one of the speakers at the annual meeting of the Russian Aero Club, has been correctly reported, it would appear as though the Orthodox Church is opposed to the study of aviation. It seems also, although the secret has been well kept, that Russia has a peasant who can easily beat Wright and Farman at their own game. He is said to have had the audacity to fly over a church in the aeroplane he has invented, and for this deadly sin he was prosecuted by the priest, condemned to be birched and anathematised by the local diocesan council. We ought to hear more of him—or the reporter.



Aeronautical Patents.

Applied for in 1907.

Published January 14th, 1909.

27,552. J. W. CLOUD. Means of transport by land, water, or air.

Applied for in 1908.

Published January 14th, 1909.

2,588. L. BLERIOT. Balancing steering apparatus.

6,566. M. F. GUTERMUTH. Wings for flying machines.



AEROPLANE CLUB DINNER.

THE first annual dinner of the Aeroplane Club of Great Britain and Ireland was held at the Savoy Hotel on Wednesday night, Mr. Horridge, K.C., M.P., being in the chair. Among the company present, which numbered 160, were Capt. Ferber, of the French

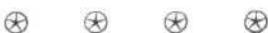


CONTINENTAL "FABRIC."

ONE of the most important branches of the aeronautic industry is filled by the Continental Tyre Co., who have made a speciality of the production of surface material, which is constructed on the same lines as their famous balloon fabric. Altogether they have over 100 types of material in their standard range of patterns, and of these three in particular are at present specially designed for aeroplane use. The lightest weighs 120 grammes per square metre, and has a tensile strength of 850 kilogs. per metre; it is suited to the surface of experimental gliders.

The next fabric weighs 145 grammes per square metre, and has a strength of 1,000 kilogs.; it is such as is used on the Farman aeroplane. The third and strongest aeroplane surface weighs 190 grammes per square metre, and has a strength of 1,350 kilogs.; this pattern is strong

Army, Major Baden-Powell, Mr. F. W. W. Hutchinson, Mr. Roger Wallace, K.C., the President of the Aero Club of the U.K., the Prince of Kapsorthala, Col. H. S. Massy, C.B., Sir C. Champion de Crespigny, Col. Mark Mayhew, and Major Templer.



enough for very big aeroplanes such as are not at present in existence.

All the above-mentioned fabrics consist of a single layer of Egyptian cotton, and have one surface treated with rubber. The type of fabric employed for spherical balloons has two layers of cotton arranged diagonally; it weighs 260 grammes per square metre, and has a strength of 620 kilogs. For airships, on the other hand, the two layers have their threads parallel, and the material weighs 330 grammes per metre for a strength of 1,500 kilogs. This latter is such as is used on the "Ville de Paris." In the balloon and airship fabrics there is a rubber surface between the layers, and another on the inside of the finished envelope. The outside of the envelope is coloured yellow, in order to better resist the decomposing effects of light.

EXTRAORDINARY CONFERENCE OF THE FEDERATION AERONAUTIQUE INTERNATIONALE, HELD IN LONDON ON JANUARY 11TH AND 12TH, 1909.

(Officially communicated by the Secretary of the Aero Club of the U.K.)

Federation Aeronautique Internationale. DELEGATES.

FRANCE.

Count de Castillon de
Saint-Victor.

M. Ferber.

M. Pierre Gasnier.

Count de la Vaulx.

M. Ernest Zens.

M. Paul Rousseau.

BELGIUM.

Baron Guy van Zuylen.
Ademar de la Hault.
Fernand Jacobs.

SWITZERLAND.

Col. Schaeck.

GERMANY.

Prof. Busley.
Lieut.-Col. Moedebeck.
Capt. Hildebrandt.
Herr Stade.
Herr Eschenbach.
Herr Hiedemann.
Herr Wurmbach.
G. M. Herrmann.
E. Clouth.

H. Manns.
C. Schütze.
H. Oestereich.

SPAIN.
Col. Vives y Vich.
Capt. Kindelan.

AERO CLUB OF THE
UNITED KINGDOM.
Ernest C. Bucknall.
Vice-Admiral Sir Charles
Campbell, K.C.M.G.,
C.B., D.S.O.
Col. J. E. Capper, C.B.,
R.E.
Martin Dale.
Prof. A. K. Huntington.
V. Ker-Seymer.
C. F. Pollock.
Hon. C. S. Rolls.
Viscount Royston.
J. T. C. Moore-Brabazon.

AMERICA.
Roger W. Wallace, K.C.

At the meeting of the Bureau of the F.A.I., consisting of R. W. Wallace, K.C., Count de la Vaulx, Prof. Busley, and M. Fernand Jacobs, at the Ritz Hotel, on Monday, January 11th, 1909, in the absence of M. Georges Besancon, who was prevented from attending through illness, Mr. J. H. Ledebour was elected to act as Secretary for the F.A.I. during the present Conference.

In the absence of Prince Roland Bonaparte, President of the F.A.I., Mr. Roger W. Wallace, K.C., took the chair at the Conference that opened at 2.30 p.m.

The application for admission to the F.A.I. of the Aero Club of Odessa, as representing Russia, was considered, and it was decided to postpone the admission until the next Conference.

The following official resolutions were passed:—

Gordon-Bennett Balloon Race.

The International Conference, meeting to decide the winner of the Gordon-Bennett Balloon Race, declares:—

That, having taken note of the official award of the German Club, whereby Col. Schaeck was, exclusively on a point of law, declared the winner;

That, having considered the various proposals submitted to the meeting, some of which suggested the annulment of the race, whilst others suggested that the first place should be awarded to Mr. John Dunville and that Col. Schaeck should be disqualified, regrets

That the interpretation of its rules prevents this Conference from giving retroactive effect to the decision of May 27th, 1908; further regrets.

That, having before him the proposition put forward in a perfect spirit of sport by the Aero Club of the United Kingdom, Col. Schaeck should have expressed his willingness that the first prize should be awarded to the Aero Club which had protested against him, provided

that he himself were awarded a place in the race, and to accept the division with Mr. Dunville of the sum of 12,500 frs. This attitude is deplored by the Conference, which nevertheless confirms the classification of the German Club.

The Definite Settlement of the General Regulations of Dirigible Balloon and Aviation Contests.

The regulations drawn up and presented by the Aero Club de France were provisionally adopted. A committee, consisting of Count de La Vaulx, Lieut.-Col. Moedebeck, Prof. Huntington, and M. Fernand Jacobs, was appointed to consider these regulations, and report thereon to the next conference of the F.A.I.

The Settlement of the General Rules for the Gordon-Bennett Aviation Cup for 1909.

The rules drawn up and presented to the Conference by the Aero Club de France were provisionally approved.

The following special conditions apply to the contest for the present year:—

The contest to be held round a circuit (without a re-entrant angle) having a perimeter of from 5 to 10 kiloms.; the total distance to be accomplished by each competitor not to be less than 20 kiloms. from the starting post to the finishing post. Machines will be allowed to come to the ground and start again during their circuit.

Prizes of £48,000.

On the proposal of the Aero Club de Belgique the Conference approved the creation of an International prize, amounting to £48,000, devoted to dirigible balloons and flying machines.

The Aero Club of America proposed that this Conference of the F.A.I. should approve the creation of a commission empowered to discuss with the various clubs the question of International law, of the rights of individuals and the State, such as the regulation of traffic, so far as this concerns aerial navigation; the commission to consist of three members from each affiliated Club, to include one military representative, one naval representative, and one legal representative.

Gordon-Bennett Balloon Race.

It was unanimously decided to postpone the close of entries for the Gordon-Bennett Balloon Race from February 1st to March 15th, 1909, and the Swiss Aero Club was empowered to negotiate with the Societa Aeronautica Italiana with a view to holding the next Conference in Switzerland in connection with the Gordon-Bennett Balloon Race instead of at Milan as previously arranged.

Luncheon to the Delegates.

Mr. Frank H. Butler entertained the Delegates to lunch at the Royal Automobile Club on Tuesday, Jan. 12th.

Banquet to the Delegates.

Mr. Roger W. Wallace, K.C., Chairman of the Aero Club of the United Kingdom, entertained the Delegates at the Café Imperial at the close of the Conference. Amongst the speakers were Count Wrangle, the Swedish Ambassador, Sir David Salomons, Count de la Vaulx, Prof. Busley, Col. J. E. Capper, Col. Schaeck, Lt.-Col. Moedebeck, and Mr. F. Jacobs.

CORRESPONDENCE.

* * * The name and address of the writer (not necessarily for publication) MUST in all cases accompany letters intended for insertion, or containing queries.

THE USUAL THING.

To the Editor of FLIGHT.

SIR,—I am sending you herewith a cutting from a leading London contemporary of to-day's date, in case it should have escaped your notice. Is it not disgraceful that such articles should find their way into the press? It is owing to this attitude that England was so far behind in the early days of the motor industry.

As you are making a point of counteracting the habit of scoffing against this new industry, perhaps you might think it worth while to refer to the article in your paper.

Yours faithfully,

HOWARD T. WRIGHT.

The following are a few typical extracts from the article in question—an article, by the way, which we are glad to see was promptly "exposed" in the *Morning Post*, the day after it had appeared in the evening paper:—

"There is quite a boom at present in aeroplane matters.

"Of course, it is always nice to see people enthusiastic about new undertakings in which they think they are interested.

"Such indulgence in Utopian speculation may be amusing as a pastime, but, to my mind, it will be long before one can regard the aeroplane otherwise than as a means for experiencing a novel sensation.

"The space an aeroplane occupies provides prohibitive limitations. It makes its use in large cities practically impossible, and more or less confines it to the parks and property of wealthy landowners. Even in warfare, where so many important claims are made for the aeroplane, the low elevation of flight of the latter, and the excellent target the driver would make for the marksman, almost restrict the use of such an appliance to night time.

"I understand that the Aeronautical Society has acquired a stretch of ground of considerable area for experimental purposes.

"No doubt during the coming year it will become fashionable to journey out there to witness experiments by scores of enthusiasts, many of whom will fail even to leave the ground."

[As will be seen, there is a good deal of "I" about it, as well as much haughty patronage, for which the poor pioneer in a new field should, of course, be humbly grateful. But probably, in a similarly superior strain, ere long, when all the real hard work has been done, this self-same writer will be found graciously consenting to derive some pecuniary benefit to himself out of the valuable assets built up by those he now seeks to ridicule.—ED.]

AN APPRECIATION.

To the Editor of FLIGHT.

SIR,—I have just seen the first number of your new journal, FLIGHT, and would like to congratulate you on the happy selection of this name in connection with the important subject of aerostation. The word "Flight" is terse and comprehensive; and, in pondering over the subject of flight, my mind reverts to the earliest recorded beginning of things: when "There was light." And in that marvellous account in Genesis of the sequence of Creation, each in order: earth, water, air, and the denizens thereof, we at last come to man, who had the power to evolve to a higher plane from his primitive condition as a defenceless creature, clothing himself with leaves and skins as a protection against the elements, cold and wet; defending himself against the animal world. Onwards, through Tubal-Cain's time, devolving weapons and tools to provide his food, and requirements for tilling the soil and hunting wild beasts. Struggling with his fellow-men, each striving to gain what the other had laboured for. We trace his weapons from the Flint Age through various periods, in the shape of spear-heads, knives and arrows, with corresponding protection in shields and armour. Then comes "villainous saltpetre" explosives, mines, guns, citadels and ironclads, to the present century, when we find men armed to the teeth with Titanic weapons, both of offence and defence. Then, suddenly, we arrive at the dawn of another period—that of "Flight." And what may this not mean? Either universal destruction or universal peace. Clever writers, like Wells, have pictured horrors that cannot be contemplated of "flight" as a means of war. And Tennyson:—

"Heard the heavens filled with shouting;
And there rained a ghastly dew,
From the nation's airy navies
Grappling in the central blue."

We, however, can hope otherwise; for in the Old Book the Psalmist asks for "the wings of a dove" in order that he might be "at rest." So, let us in this new year consider FLIGHT as the harbinger of peace and goodwill towards men.

Wishing you every success with your new venture.

I remain, yours faithfully,

HENRY EDMUNDS.

PROGRESS IN FLIGHT.

To the Editor of FLIGHT.

SIR,—In Mr. Jack Humphrey's letter I read the words, "What of Voisin?"

May I still ask what of him? Mr. Jack Humphrey seems very upset with him because he does not deliver some propellers he ordered, and then in the next paragraph says he can do, and is prepared to do, everything that they can in France.

Why, then, does he not make the propellers himself, since he is prepared to make machines for other people in England, English made?

I suppose a propeller is one of the little *details* they know more about in France?

Yours truly,

J. T. C. MOORE-BRABAZON.

AN ENGINE FOR MODELS.

To the Editor of FLIGHT.

SIR,—Referring to the letter of Mr. Eldridge in your issue of last week, it would be interesting to have particulars of your correspondent's requirements: power required, and how many cylinders, &c.

Yours faithfully,

W. O. S.

Jan. 9th.

P.S.—I am delighted with your paper.

HOLYHEAD TO DUBLIN BY AEROPLANE.

To the Editor of FLIGHT.

SIR,—Mr. Wilbur Wright has succeeded in flying a distance of almost eighty miles.

This is more than sufficient to cover the streak of water between Holyhead and Dublin, and the idea has occurred to us that a successful flight between the two places would excite an immense amount of interest, and incidentally afford an exciting experience to thousands of Irish people who would foregather in Dublin to see the first of those who attempt the trip successfully alight in the Phoenix Park.

The idea, we feel sure, would prove attractive to aeroplanists, and if sufficient inducement were offered, no doubt Mr. Wright or some other flyer would make the attempt.

We should be glad to contribute £100 to a prize fund to the first who accomplishes this feat during the year 1909, in the hope that other Irishmen, and especially those interested in the vitally important question of aerial flight, will join, and so provide a sufficiently alluring total.

Yours, &c.,

MECREDY, PERCY AND CO., LTD.

Motor News Office, Dublin.



ANSWERS TO CORRESPONDENTS.

W.M. (Rotherham).—We will endeavour to take the matter up; and shall also be glad to receive details of your machine when you are able to furnish them.

S.J. (Hirnant).—Any particulars you care to send us about your idea will be treated with strict confidence. We shall be happy to give you our advice and opinion.

L.N.N. (Stockwell).—We note your views and will bear in mind your wishes.

C.C. (Holloway).—We much appreciate your congratulations. Your letter has been forwarded as requested.

H.H.G. (Putney).—Many thanks for hearty welcome. The time is, we fear, barely ripe for carrying out your suggestion, but at the same time we are fully mindful of our mission.

W.O.S. (London, E.C.).—We very much esteem your expression of satisfaction. Any information concerning your own machine would be very welcome.